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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,542	02/23/2004	David Roth	018367-9800-01	7764
23409	7590	05/16/2005	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202			GIMIE, MAHMOUD	
			ART UNIT	PAPER NUMBER
			3747	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/784,542	ROTH ET AL.	
	Examiner	Art Unit	
	Mahmoud Gimie	3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/25/04 more</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,4,13,14-27,37-41 and 44-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Medrick (3,828,745).

Medrick discloses an internal combustion engine, comprising a choke valve (28); a choke operating device (40) that operates the choke valve (28); a thermally conductive assembly (exhaust gas, pipe 90, and housing 41) in direct contact with exhaust gases produced by the engine, a thermally responsive member (86) in thermal communication with the thermally conductive assembly (90) such that the thermally conductive assembly transfers heat from the exhaust gases to the thermally responsive member (86); and a mechanism (88,62,64,44,52) that moves in response to the thermally responsive member (86) to cause the choke valve(28) to remain in at least a partially open position during engine starting when the thermally responsive member (86) senses a temperature above a predetermined temperature, col. 4 and ll. 35-40.

With regard to claim 4, wherein the choke valve (28) is interconnected to the (sic) choke-operating device (62) via a choke linkage (52), the choke linkage including a choke lever, see figure 1.

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With regard to claim 8, wherein the thermally conductive assembly comprises a thermally conductive element (90).

With regard to claim 9, wherein the thermally conductive element includes a chamber, and wherein the thermally responsive member (86) is disposed in the chamber.

With regard to claim 10, wherein the thermally conductive element includes a first portion (41), a second portion (90), and a bridge (joint, see figure).

With regard to claim 11, wherein each of the first portion, second portion, and bridge has width, and wherein the width of the bridge is narrower than the width of either the first or second portion.

With regard to claim 12, wherein the thermally responsive member (86) is coupled to the first portion (41) of the thermally conductive member (90,41 and exhaust gas)

With regard to claim 13, wherein the thermally conductive assembly includes a cover (68), see figure 3 where the cover encloses the hot air passage (90).

With regard to claim 14, wherein the cover is coupled in mechanical contact with the thermally responsive member (86), see figure 2.

With regard to claim 15, wherein the thermally responsive member (86) has at least one of a high coefficient of thermal expansion and of thermal contraction such that the thermally responsive member either expands or contracts in response to temperature changes.

With regard to claim 16, wherein the thermally responsive member (86) includes a bimetallic coil.

With regard to claim 17, wherein the bimetallic coil has a radial configuration, figure 2

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With regard to claim 18, wherein the thermally conductive assembly (90) is disposed adjacent to an engine exhaust system (92).

With regard to claim 19, wherein the thermally conductive assembly is disposed adjacent to an engine muffler. This relative location is inherently and necessarily present in the invention.

With regard to claim 20, wherein the thermally conductive assembly (90) at least partially surrounds the path of the exhaust gases.

With regard to claim 21, wherein the specific geometry of the thermally conductive assembly (90) is chosen to control the heat transfer to the thermally responsive member (86).

With regard to claims 22-23, the stop lever is the end 66.

With regard to claims 24,25-27 and 37-41, the limitations are comparable to above rejected claims.

With regard to claims 44-49, the limitations are comparable to the above rejections.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 50-52 and 55 are rejected under 35 U.S.C. 102(b) as being anticipated by Dykstra et al (6,145,487).

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Dykstra et al discloses a choke operating assembly for operating a choke valve (40) in an internal combustion engine, the choke operating assembly comprising: an air vane (28), the air vane including a tab; and a choke linkage, the choke linkage including a first choke arm (34), a second choke arm (36), the second choke arm (36) including a protrusion (see figure 4); wherein the air vane (28), first choke arm (34), and second choke arm (36) are integrally formed as a unitary body.

With regard to claim 51, wherein the choke valve (40) is biased closed by a biasing member (44), and wherein the protrusion (figure 4) on the second choke arm (36) is coupled to the biasing member (44).

With regard to claim 52, wherein the tab of the air vane is configured to interact with a stop lever (62) that is movable due to temperatures within the engine to cause the choke valve to remain in at least a partially open position during engine starting when the engine temperature is above a predetermined temperature.

With regard to claim 55, a choke lever (38) is coupled to the choke linkage.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 53 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dykstra et al (6,145,487).

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Dykstra et al discloses all the limitations as applied to claims 50-52 above except for choke operating device is injection molded or is made of nylon.

At the time the invention was made; it would have been an obvious matter of design choice to a person of ordinary skill in the art to form the choke operating device by injection molding or from nylon because applicant has not disclosed that doing so provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, further, would have expected applicant's invention to perform equally well with as disclosed by Dykstra et al because the automatic choke control is responsive to engine speed and temperature.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2,3, 5-7 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Medrick (3,828,745) in view of Dykstra et al (6,145,487).

Medrick discloses all the limitations as applied to claims 1 and 4 above except for an air van or fan that moves as a function of the engine speed.

Dykstra et al discloses an automatic choke control mechanism that uses an air vane responsive to an engine speed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Medrick by utilizing an air vane responsive to the

engine speed as disclosed by Dykstra et al. The motivation to do so would have been to provide an automatic choke control mechanism that resets before a cold starting of the engine, but that keeps the valve at least partially open during hot restarts of the engine, see col. 3 and lines 20-24 of Dykstra et al.

With regard to claims 3,5-7 and 28, Dykstra et al shows air vane as stated above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references show automatic choke control systems.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahmoud Gimie whose telephone number is 571-272-4841. The examiner can normally be reached on Tuesday-Friday between 7 a.m. -3:30 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on 571-272-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MG


MAHMOUD GIMIE
PRIMARY EXAMINER